



Amendment under 37 C.F.R. §1.114
Serial No. 10/626,675
Attorney Docket No. 030901

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended) A susceptor of an approximately round disk shape, having a concave wafer pocket on a front surface thereof for accommodating a wafer, comprising:

a gas supply channel having a first opening passing through from a side surface or a rear surface of the susceptor to the wafer pocket, and a first groove formed on the rear surface of the susceptor and extended from a periphery of the rear surface of the susceptor to the first opening and having a shape adapted to supply a gas into the wafer pocket as the susceptor rotates in a predetermined direction; and

a gas discharge channel having a second opening passing through from the wafer pocket to the side surface or the rear surface of the susceptor, and a second groove formed on the rear surface of the susceptor and extended from the periphery of the rear surface of the susceptor to the second opening and having a shape adapted to discharge the gas present in the wafer pocket as the susceptor rotates in the predetermined direction.

2. (Cancelled).

3. (Withdrawn) An epitaxial wafer production apparatus comprising:

a chamber having a gas supply vent and a gas discharge vent;

a susceptor of an approximately round disk shape, which is disposed inside the chamber and comprises a concave wafer pocket on the front surface thereof for accommodating a wafer, a gas supply channel passing through from a side surface or a rear surface to the wafer pocket, and a gas discharge channel passing through from the wafer pocket to the side surface or the rear surface;

support means for supporting the susceptor; and

heating means for heating the susceptor and the wafer inside the chamber.

4. (Withdrawn) The epitaxial wafer production apparatus according to claim 3, comprising a gas supply vent for supplying a carrier gas containing a raw material gas only above the susceptor located inside the chamber.

5. (Withdrawn) An epitaxial wafer production apparatus comprising:

a chamber;

a susceptor disposed inside the chamber and comprising a concave wafer pocket on a front surface thereof for accommodating a wafer;

support means for supporting the susceptor; and

heating means for heating the susceptor and the wafer inside the chamber, wherein the apparatus further comprises:

a gas supply vent for supplying a carrier gas containing a raw material gas to above the susceptor located inside the chamber; and

a heavy gas supply vent for supplying a gas which is heavier than the carrier gas to under the susceptor located inside the chamber.

6. (Withdrawn) A method for producing an epitaxial wafer, comprising the steps of:
placing a wafer into a concave wafer pocket formed on a front surface of a susceptor disposed inside a chamber;

supplying a gas from under the susceptor into the wafer pocket;

discharging a gas present inside the wafer pocket from under the susceptor; and

heating the susceptor and the wafer inside the chamber.

7. (Withdrawn) A method for producing an epitaxial wafer, comprising the steps of:
placing a wafer onto a susceptor disposed inside a chamber;
supplying a carrier gas containing a raw material gas to above the susceptor inside the chamber and supplying a gas heavier than the carrier gas to under the susceptor; and
heating the susceptor and the wafer inside the chamber.

8-9. (Cancelled)

10. (New) The susceptor according to claim 1, wherein the first groove is formed so as to whirl toward a center of the susceptor in the rotational direction of the susceptor, and the second groove is formed so as to whirl toward the outside of the susceptor in the rotational direction of the susceptor.

11. (New) A susceptor of an approximately round disk shape, having a concave wafer pocket on a front surface thereof for accommodating a wafer, comprising:

a gas supply channel having an opening passing through from a rear surface of the susceptor to the wafer pocket, and a groove formed on the rear surface of the susceptor and extended from a periphery of the rear surface of the susceptor to the opening and having a shape adapted to supply a gas into the wafer pocket as the susceptor rotates in a predetermined direction; and

a gas discharge channel passing through from the wafer pocket to the rear surface of the susceptor and having a shape adapted to discharge the gas present in the wafer pocket as the susceptor rotates, the gas discharge channel being positioned at a center side of the susceptor relative to the gas supply channel.

12. (New) The susceptor according to claim 11, wherein the groove is formed so as to whirl toward the center of the susceptor in the rotational direction of the susceptor, and the gas

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discharge channel is formed so as to whirl toward the outside of the susceptor in the rotational direction of the susceptor.